Amendments to the Drawings:

The attached replacement sheet of drawings includes changes to Fig. 3 and replaces the original sheet including Figs. 2-4.

In Figure 3, the pitch, *p*, marked as reference numeral 38, has been added.

Attachments following last page of this Amendment:

Replacement Sheet (1 page)
Annotated Sheet Showing Change(s) (1 page)

REMARKS

Claims 1-18 are pending. Claims 1 and 9 are independent.

Applicant acknowledges with thanks the examiner's indication that claims 3, 5, 6, 8, 13, 17 and 18 would be allowable if re-written in independent form.

Applicant amended independent claim 1 to recite the feature that the conductive lines define a channel to receives particles. Support for this feature is provided throughout the originally filed application, including, for example, at FIG. 3, page 5, lines 10-17, and at page 6, lines 18-22. Additionally, applicant amended independent claim 1 to clarify that the conductive lines are spaced at a pitch related to the diameter of particles of interest. Support for this clarification is provided, for example, at page 6, lines 14-17 of the originally file application. Applicant similarly amended independent claim 9.

Applicant also amended FIG. 3 to add the notation *p*, marked as reference numeral 38, to indicate the pitch defined by the conductive lines 34 and 36. Furthermore, applicant amended the specification to provide a description in the specification of the pitch *p* illustrated in amended FIG. 3.

The examiner rejected claims 1, 2, 4, 7, 9-12 and 14-16 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,928,892 to Storbeck et al. in view of U.S. Patent No. 5,247,827 to Shah.

The examiner admitted that "Storbeck discloses a particle detector however, does not expressly disclose the particle detecting integrated circuit including a device having a pair of exposed conductive lines spaced at a critical pitch corresponding to particles of interest" (Office Action, page 4). The examiner, however, contends that Shah teaches this feature.

Applicant's independent claim 1 recites "a vacuum chamber containing a particle detecting integrated circuit, the particle detecting integrated circuit including a device having a pair of exposed conductive lines defining a channel to receive particles, the pair of exposed conductive lines spaced at a pitch related to the diameter of particular particles of interest." Thus, particles are received between the two conductive lines of applicant's particle detecting integrated circuit. Subsequently, as explained in the originally filed application:

> **A metallic particle having a diameter the size of the pitch between the lines, or larger, generates a short in a current flow between the lines. A non-metallic particle having a diameter the size of the pitch between the lines, or larger, generates a change in capacitance between the lines. The short and/or change in capacitance is detected by the computer system. (Page 6, lines 22-28)**

In contrast, Shah describes an apparatus and method for measuring conductive airborne particulates in which a filter, having a pair of interdigitated electrodes printed on the surface of the electrodes, is placed in a sampling chamber (Abstract). Particularly, Shah explains:

> **The general principle of the invention is illustrated in the schematic illustration of FIG. 1. An air pump 10 of predetermined pumping capacity pulls ambient air as an air flow 12 through a closed conduit 14. A mesh filter element 16 intercepts the air flow 12 and has a mesh size sufficiently small so as to trap particles carried in the air flow 12 on its upstream surface. Two interdigitated electrodes 18 and 20 are preformed on the upstream surface of the filter element 16 and, at least during readout, are connected to respective terminals of an ohmmeter 22 or other resistance-measuring device. (col. 2, lines 14-24)**

Thus, it is Shah's filter that traps particles in its mesh. The electrodes 18 and 20 are used to facilitate measuring the characteristics (e.g., conductivity) of the particles trapped by the mesh. Shah's electrodes, however, are not themselves used to receive the air borne particles that are to be measured. Accordingly, Shah neither discloses nor suggests at least the feature of "a vacuum chamber containing a particle detecting integrated circuit, the particle detecting integrated circuit including a device having a pair of exposed conductive lines defining a channel to receive particles, the pair of exposed conductive lines spaced at a pitch related to the diameter of particular particles of interest," as required by applicant's independent claim 1. Applicant's independent claim 1, and the claims that depend from it, are therefore patentable over the cited art.

Independent claim 9 recites "a particle detecting integrated circuit embedded in the mask stage, the particle detecting integrated circuit containing a device having a pair of conductive lines exposed to a local vacuum environment, the pair of lines defining a channel to receive particles, with the pair of conductive lines spaced at a pitch related to the diameter of particles of interest." For at least similar reasons as those provided with respect to independent claim 1, at

least this feature is not disclosed by the cited art. Independent claim 9 and the claims that depend from it are therefore patentable over the cited art.

It is believed that all the rejections and/or objections raised by the examiner have been addressed.

In view of the foregoing, applicant respectfully submits that the application is in condition for allowance and such action is respectfully requested at the examiner's earliest convenience.

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

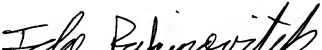
Canceled claims, if any, have been canceled without prejudice or disclaimer.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

No fee is believed due. Please apply any charge or credit to deposit account 06-1050, referencing attorney docket 10559-932001.

Respectfully submitted,

Date: June 13, 2006



Ido Rabinovitch
Attorney for Intel Corporation
Reg. No. L0080

Customer No. 20985
Fish & Richardson P.C.
Telephone: (617) 542-5070
Facsimile: (617) 542-8906